



KID-CENTRIC™ LIGHTING  
**SOLUTIONS.**

[www.meshtek.com](http://www.meshtek.com)



# VISION

MeshtTek Labs and GreenWatt Development, both based in Texas, led the development of a new lighting system designed to help address the need for school safety and functional lighting. The Kid-Centric™ Lighting systems help communicate emergency safety protocols to students, teachers, and administrators with instant visual cues and immediate notification alerts.

As a school premises is spread over a huge area, it becomes essential to deploy systems that can cover a wide range with multiple devices and this is exactly what the collaboration aimed at achieving while ensuring maximum safety for the school staff and students.



## The Goal

With school safety at the forefront of many discussions, Kid-Centric™ Lighting is impacting schools with the positive changes necessary to enhance the safety and learning environment in educational facilities everywhere. Educators and administrators need a reliable and affordable system they can trust.

This brings the need for a system that follows emergency protocols, is simple to use and can integrate easily into existing safety systems, or operate as a stand-alone solution to provide the support that schools need.

# OUR APPROACH

MeshTek Labs with a team of highly experienced engineers in embedded systems, wireless systems, software applications, iOS/Android applications, Linux, database and backend systems, and hardware designs created an IoT solution, delivering reliable safety lighting to schools. The patented technology deployed by the team at MeshTek is the most advanced, long-range, Bluetooth mesh platform in the world, which is critical for school applications, where it can provide one hundred percent coverage campus-wide.

We installed 4 feet and 2 feet RGBW tube lights with built-in controllers. We white labeled our software solution for GreenWatt Lighting to take care of commissioning, to control, and to troubleshoot various aspects of the solution. Furthermore, we also replicated our secured DBMS along with the customer support dashboard solution, the Kid-Centric™ lighting solution.

We have also certified various parts of the system for FCC and UL marks. We developed 30+ ready to go controllers and devices and provided training to enable convenient use of the software. After the solution was developed, we continued to work with GreenWatt Developers to add and enhance the capabilities to the solution.

# THE SOLUTION

## Functional Lighting

Class bell schedules integrated with lighting and lighting-backed child behavior management is beneficial for both teachers and students.

## Open / Closed Door Status

The entire system is programmed to send push notifications to select administrators to address the issue of propped-open doors.

## Enhanced Learning Environment

GreenWatt has developed lighting control systems that influence mood, focus, motivation, concentration and performance in children.

## Safety Lighting System

The Link And Sync system is based on the Texas state security protocols and provides one of the most versatile and reliable visual safety solutions to students, teachers, and administrative personnel.

## Long Range Wireless Network

MeshTek's revolutionary Bluetooth mesh technology is the world's only long range wireless technology to cover thousands of devices in a network.

## Optimal Classroom Environment

The Kid-Centric™ solution provides teachers with the ability to dynamically control lighting colors to enhance each classroom activity.



## An Overview of Various Functions of Kid-Centric™ Solution:

- Light bars on the inside and outside of the doors are used to display the STATUS of each door (Open or Closed).
- Full-Range CCT White LED Lighting provides dynamic light control to specify each classroom activity.
- Talk or No-Talk signals with green and red light respectively to control children's behavior.
- Safety control application based on state security protocols so that administrators can send alerts to school staff and students during an emergency.
- Emergency training functions for both teachers and students.
- The lighting is synchronized with the ringing of bells and it adjusts accordingly to send signals to everyone in the school premises about the upcoming class or recess.

# CONCLUSION



The very first successful installation of Kid-Centric™ Lighting solutions was done at Carroll Independent School District (ISD) in Southlake, Texas. This project featured both security and functional lighting applications and got a lot of praise from administrators, parents, and educators.